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01. TRANSFER LEARNING AND A CNN APPROACH TO SIMPLE MESSAGE EMOTIONAL CLASSIFICATION

Aseena Shaik Babu, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

For evaluating user perceptions, emotion classification algorithms have been frequently employed. Pencil components are required in traditional supervised learning approaches, which necessitates a solid grasp of the topic. Because online posts are often brief, there aren't many components to use for successful categorization. As a result, transfer learning models may be used to learn a variety of phrase usages in a variety of situations. We need to use machine learning approaches to investigate the deeper meanings of phrases in order to determine emotional orientation from simple messages. The impacts of transfer learning and Convolutional Neural Network for emotion categorization in social media are investigated in this research. To begin, transfer learning models are used to turn words in posts into matrices. The word pattern in phrases is then fed into CNN, which learns lengthy contextual interdependence between words. Given adequate training data, machine learning algorithms may efficiently understand word use in the perspective of social platforms, according to the findings. The amount and clarity of training phase has a significant impact on performance. More research is needed to confirm the performance in various social media platforms.

02. SEQUENTIAL PATTERNS FOR RETRIEVE WORKFLOW PATTERNS FROM THE BROWSER APPLICATION

Mamidi Ranjith Reddy, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Web platform is used extensively in current business systems, allowing software suppliers to efficiently deliver them as a service, reducing some of the burden of the conventional release and upgrade approach. Utilizing explicit models that provide awareness into application function may greatly aid creation, debugging, and administration. Model-based validation enables rapid test design based on a definition of the application's possible states and movements between them. Because it's difficult to design specific behavior that are exact enough to be executed by a software testing tool, another option is to recover them from operating applications. Mining those models, on the other hand, is difficult, because it is necessary to know whether two systems are equal, and even how to get to that stage. We introduce modified Sequential Patterns, a tool for extracting behavioral patterns from cross web services. By producing program runs and watching the application performance via the graphical interface, proposed sequential patterns progressively develops a model. Sequential pattern generated models that clearly explain the implemented workflows and can be immediately utilized for design validation in our assessment on various real-world web apps.

03. A BETTER TRANSMISSION CONTROL PROTOCOL TO EXTEND THE LIFE OF THE WSN-BASED CLOUD SERVICE

Srinivas Gadari, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

A cloud is incomplete without a sensor networks. However, the power sources of sensor devices in a WSN-based cloud platform network are limited. By structuring nodes to shorten the communication range among sensor devices and ground station, a protocol provides an effective approach for ensuring energy savings and extending network lifetime. We suggest an improved transmission control mechanism in this work to increase the lifetime of WSN-based services. The planned TCP is divided into two sections. And for overlying equitable clusters, an appropriate number of nodes is first calculated. Finally, cluster heads are chosen at ideal positions by rotating the CH functionality between neighbor nodes using a novel Cluster formation algorithm that combines a back-off timing mechanism for CH pick and a spin mechanism for CH spinning. The suggested protocol, in particular, decreases and adjusts node power consumption by increasing clustering structure, whereas TCP is ideal for networks with a long lifetime. The results of the tests show that the TCP outperforms existing protocols.

04. APRIORI WITH PSO FOR THE EFFECTIVE BIG DATA PLATFORM

Nalla Ajay Kumar, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Considering today's society's exponential expansion of digital information, the constant collection and proliferation of statistics in recent years has made it impossible to extract usable information from it, prompting the creation of data mining. Data mining technique includes apriori mining. The finding of frequent patterns in a huge quantity of data, as well as the extraction of strong relationship links among them, is referred to as apriori mining. Apriori algorithms need setting minimal support and confidence levels in advance. Individual personality, however, has a big impact on these two values. Many academics utilize mean and weight to determine these two numbers, but the results are still insufficient. This study suggested a new apriori - PSO algorithm, which is invented into smart algorithm, and can discover the optimum solution, which we use to determine the optimum support, and afterwards put forward that information entropy to monitor the efficiency in apriori algorithm, and the enhanced algorithm was tried to apply to the social assistance event correlation test and the enhanced apriori algorithm was adapted to the improving overall.

05. EVALUATING THE SURVIVAL RATE OF HEART DISEASE PATIENT USING ADASYN WITH MACHINE LEARNING TECHNIQUES

Sridhar Ambala, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Heart disease is a leading cause of death and morbidity worldwide. Predicting heart disease survivors is a difficult task in clinical data analysis. Several research have shown that important characteristics are important in increasing the effectiveness of the training models. This research looks at heart disease survival from a group of 250 individuals who were hospitalized to the hospital. The goal is to identify key characteristics and machine learning approaches that can improve the quality of heart patient survival prediction. This research utilized four machine learning models to predict patient survival: word embedding, transfer learning, natural language processing, and dimensionality reduction. Adaptive Synthetic Sampling is used to solve the unbalance group problem. The findings are evaluated to those obtained utilizing a complete selection of characteristics by machine learning methods. The suggested work outperforms previous models and obtains a higher accuracy score with ADASYN in predicting the survival of cardiac patients, according to experimental data.

o6. ENHANCING THE THROUGHPUT BASED ON UAV CHOOSING AND IT'S POSITION IN MULTIPLE UAV NETWORK

Dr. Pakala Madhusudan, Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Unmanned aerial vehicles could help mobile networks operate better due to their flexibility in placement and high movement. The UAV-assisted collaborative communications system, in which many UAVs act as relays among two ground users, is the subject of this research. The optimum harmonic mean (HM) and greatest downlink SNR are two UAV choosing algorithms based on signal-to-noise ratio (BDS). The path loss, throughput, and coverage possibility for both selection procedures are then calculated using closed-form formulas. Moreover, an optimal solution is constructed to maximize throughput while adhering to the chosen UAV's 2-D coordinate limitation. The issue's concavity is examined in relation to the horizontal positioning of the chosen UAV. Following that, we offer techniques for determining optimum and sub-optimal UAV location. Simulation studies confirm the correctness of the generated expressions and show that the BDS choice has a large performance advantage at low SNRs, while both selection strategies perform similarly at high SNRs.

07. A FAULT-TOLERANT DEEP LEARNING APPROACH IS USED FOR INDEPENDENT MOBILE NODE ALLOCATION IN MANET

Valiki Vijayabhaser, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

In MANETs, we present a fault-tolerant deep learning algorithm for the adaptive decision-making procedure of independent mobile nodes that alter their geographical configuration. Deep learning is dependent on differential evolution and ensures that each node retains a user-defined minimum connection with its close neighbors. As a result, DL offers a fault-tolerant architecture control method for the network access that each smart device is supposed to maintain. DL employs the bar graph architecture in its fitness computations to enforce a user-defined minimum number of neighbors while maintaining a consistent topology of the network. The efficiency of DL is assessed by contrasting it with our differential evolution DL, which employs virtual pressures from neighbors as part of its fitness function. The suggested DL works well in terms of standardized area coverage, median connectivity, and minimal connectivity attained by mobile nodes, according to simulation program findings. Simulation tests show that the proposed DL produces promising results for homogeneous mobile node placement across unpredictable terrains while retaining a user-defined minimum connection between nearby nodes.

o8. EFFECTIVE AND SECURE KEY DISTRIBUTION MECHANISM FOR SENSOR NETWORKS

Gokula Pavani Yadav, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Sensor networks may be deployed in a variety of settings. WSNs are more susceptible to attack than traditional networks because to the intrinsic properties of wireless technology. In these situations, data confidentiality and verification are crucial. For WSNs, a practical key management method must be devised. We suggest a new key management system termed standards-based key management in this study. The suggested protocol method is based on the mathematical congruence feature. A key value is all that is required of each member mobile nodes. This key value is used to produce a specific key pair with the cluster head, as well as a group key that is shared with some remaining nodes in the network. As a result, the suggested approach uses the least amount of key storage capacity. Moreover, the network's sensor networks may swiftly refresh their key values. The suggested management protocol approach outperforms conventional button systems in key storage capacity and resistance against node takeover, according to performance assessment and simulation findings. In large-scale WSNs, the suggested approach may also minimize crucial establishment time delay and energy usage.

09. A PLATFORM FOR MINING UPDATING USER PROFILES IN INTERACTIVE WEB SITES BASED ON WEB MINING TECHNIQUES

Pasham Mamatha, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

We offer a full methodology and results in extracting sequential patterns from Internet log files of a genuine Webpage in this study, which includes all of the problematic components of real-world Web mining, such as changing personal profiles and external information specifying an understanding of the Web content. As a result, we describe a method for identifying and tracking changing user profiles. We also show how specific information needs derived from search terms retrieved from Internet log data may be added to the found user profiles. Additional domain specific data features are also added to profiles, providing a comprehensive perspective of the observed mass usage modes. The integrity of the extracted profiles, particularly their flexibility in the face of changing user activity, is further assessed using an objective validation technique.

10. IDENTIFYING WEB APPLICATION MALWARE USING OUTLIER DETECTION

Sowjanya Reddy Mallreddy, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Malware on web applications pose a significant security risk to networked computers and end consumers. The majority of existing threat intelligence solutions are dependent on logo approaches that can identify zero-day flaws. Furthermore, the efficiency of such systems is further constrained by the scarcity of real-world online assault data. In this research, we use a 4 process to offer an organizational scheme for creating a threat detection tool for online assaults to meet these problems. The scheme's evaluation is performed using 2 well-known databases, the Web Assault and the UNSW-NB15 repositories. Both on genuine and simulated web documents, the empirical assessments show that the suggested technique beats three other existing machine learning processes in terms of identification accuracy and false positive rate.

11. EFFICIENT CONTROL AND MANAGING OF RESOURCES IN THE SDN NETWORK

Bandaru Rajani, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

The diverse mix of the services, technologies, and devices that today's networks must handle has made network management a difficult undertaking. Through the construction of a common control plane autonomous of individual vendor devices, the Software-Defined Communication paradigm has developed as a possible way to decrease this complexity. Developing an SDN-based strategy for network resource monitoring, on the other hand, poses various issues since it must be flexible, scalable, and adaptable. In this research, we describe a novel SDN-based stable backbone network monitoring and control structure that allows both static and dynamic resource planning applications. The framework is made up of three levels that communicate with one another via a series of interfaces. In the suggested dispersed monitoring and control layer, we build a placement method to determine the distribution of executives and controllers. We then demonstrate how this layer may meet the needs of two different scenarios for adaptive workload balancing and power management.

12. COMBINATION OF MACHINE LEARNING BASED APPROACH FOR EFFECTIVE CLUSTERING

Ginnarapu Mahinder, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Pushing and picking up are the most prominent learning-based ensemble methods for classification issues among a variety of ensemble machine learning techniques. On noise-free large datasets with complicated class structures, pumping is regarded stronger than packing, but packing is stronger than boost when noisy data is available. In this research, we combine the capabilities of pumping up and packing to develop a unique hybrid machine learning oriented clustering ensemble that extends both ensemble techniques to classification challenges. Then, to achieve the consolidating consensus partition, a new consensus function is suggested that encodes the domestic and global cluster pattern of input partitions into a unique presentation and uses a unique fuzzy clustering method to such representations. Our method has been tested using 3-D simulated data, benchmarking, and real-world face detection data sets, and the results reveal that the proposed strategy surpasses existing milestones for a number of clustering tasks.

13. SECURE DATA GATHERING IN EDGE COMPUTING ENVIRONMENT USING ENCRYPTION TECHNIQUE

Kiran Kumar Thanniru, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

As 5G and Internet of Things technologies advance, more smart phones with particular sensing capabilities will have access to the system and massive volumes of data. The standard cloud infrastructure cannot meet the needs for IoT applications, including such low latency and quick data access. These issues can be solved by mobile edge computing, which improves the system's execution speed. In this research, we present a safe data aggregation strategy for IoT applications that use edge computing. There are 3 elements in our model: the end device, the edge host, and the public cloud unit. The data created by the end device is encrypted with the MD5 encryption technique and sent to the edge host, which collects the data from the end devices and sends it to the cloud host. Finally, the cloud center's secret key may be used to retrieve the collected plaintext. Our approach not only ensures the end devices' information privacy, and also offers source integrity and authenticity.

14. EEG SIGNAL CLASSIFICATION USING NAÏVE BAYES TECHNIQUE

Kothagattu Ramu, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

EEG signals are often obtained as multiplex data by inserting numerous sensors at various locations throughout the head. We propose the Nave Bayes multiplex EEG classifier as a method for more reliably classifying multidimensional EEG data. When developing a classifier, this method may take into account the interplay between multiple signals acquired at varying time intervals and places on the skulls. The suggested approach initially preprocesses raw EEG signals by discretizing the data to remove noise. It then does classification on the resultant discretized data in order to retain imprecision and ambiguity. The proposed approach finds intra-channel characteristics inside each channel and subsequently inter-channel features between multiple EEG signals using the classed data. The identified patterns are then utilized to describe and discriminate between distinct classes of multiplexed EEG data, which are depicted as fuzzy periodic information. The findings suggest that the algorithm might be a useful tool for classifying multiplex EEG data.

15. IDENTIFY THE POSSIBLE DISEASE USING PATIENT HISTORY BY LSTM

Manikanta Adi, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Primary care data processing has been intensively investigated in the sectors of intelligent counseling, illness diagnosis, smart question-answering physicians, and healthcare professional judgment support as an essential area of medical facts, and has produced numerous breakthroughs. This paper aims to use public health care data management combined with Long Short Term Memory provide the patients with major diseases that are often overlooked due to an inadequacy of professional expertise, so that sick people can do aimed medical checks to prevent their health condition from worsening. This study offers a unique LSTM-centered mixed referral algorithm dubbed medical-history oriented possible disease predictive model, which is motivated by existing recommending methods. The algorithm forecasts the patient's likely ailment based on their medical history, giving patients and clinicians a point of reference to avoid postponing treatment owing to a symptom's vague description or a lack of professional understanding. The results of the experiments suggest that our method enhances the accuracy of predicting probable illnesses.

16. MANAGING THE PROPER DATA TRANSACTION ACROSS SEVERAL DATABASES

Nomula Madhavi, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Data transactions seem to become increasingly common in this world of big data, providing new benefits to both data consumers and sellers. However, no data transmission schemes exist that meet the unique security and commercial needs of information exchange. We make a comparison in needs and procedures between data transmission process and conventional information sharing in this study, which introduces the requirements in actual data transfer processes. Following that, we design and evaluate the first information transaction system that relies on a newly defined notion known as stochastic commutative cryptography, which makes the decoding order of a stochastic and predictable encryption method commutative. Moreover, our approach enables data transactions to be outsourced in part to a semi-trustworthy cloud storage infrastructure.

17. EFFECTIVE COMMUNICATION IN MANET USING CUSTOMIZED MIDDLEWARE PLATFORM WITH CNN

Anil Moguram, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

In army and defense scenarios, immediate, mobile, and reliable interactions must overcome a number of wireless network concerns, including an absence of credible existing infrastructure, the unsinkability of mission-critical procedures, and harmful wireless dynamics caused by hidden transmissions and path loss. Due to a focus on solving Quality of Service at an application level instead of using a system at the moment approach, benchmarked techniques fall short of meeting these difficulties completely. This study describes a customizable middleware that uses CNN approach to offer timely MANET connections by reducing static congestion and modifying the file transfer protocol. This is accomplished by using RAM, a revolutionary Real-time Efficient Middleware-based design that has been presented. Extensive simulation results show that the design is adaptable and scalable, as well as capable of limiting peak delay, jitter, and packet drop in complicated and evolving MANETs.

18. EFFECTIVE BANDWIDTH AND SPECTRUM USAGE FOR A GOOD COMMUNICATION PLATFORM

Gattu Sandeep, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Traditional cognitive interactions rely significantly on the intelligence of second users to reach high spectrum usage, which entails managing SU rules and actions for spectrum accesses, power distribution across many channels, and other tasks. Because the initial users' transmissions are inherently random, these attempts necessarily raise the SUs' computational cost and detecting overheads, lowering spectrum usage efficiency. We attempt to shift the attention from SU to FU in this study. The non-uniform frequency division, along with a collaborative traffic distribution approach for FU, is used to regulate the FU's resource consumption pattern without affecting its performance, while also increasing the spare frequency band for the SU. For an accuracy guarantee of the optimal solution, we first investigate the energy-based optimal issue in conjunction with the cubic polynomial time estimation approach. The theoretical study and numerical simulations both show that those strategies are successful in achieving efficiency that is almost equal to that of the global optimal solution.

19. FINDING A GOOD PATH FOR CLEAR COMMUNICATION USING MACHINE LEARNING TECHNIQUE

Madipalli Sumalatha, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

In a wireless multicast network with several input single output channels, we suggest a responsive route discovery procedure for energy efficient transfer of data. We focus on channels made up of SISO end devices that use task planning to send a specific amount of data to a specific destination in a specific amount of time. We demonstrate how the intermediary nodes locate the path in a dispersed manner. This updated dimensionality reduction strategy considers the quality of SISO circuits while allocating power to them, resulting in the lowest end-to-end transmitting energy. The resultant method is simple to implement and delivers the best energy-efficient information transmission path and power distribution. We do experiments on Rayleigh-fading circuits to demonstrate the suggested route discovery technique's large energy savings over an interactive source multipath routing algorithm with optimized power management.

20. DEEP LEARNING TECHNIQUE FOR FIND POOR STUDY HISTORY STUDENT FROM THE STUDENT DATABASE

Mohammed Moqueed Ahmed, Assistant Professor, Department of
Computer Science and Engineering, Siddhartha Institute of Technology
and Sciences, Narapally, Hyderabad, Telangana

Abstract

At the study database, researchers used a learning data mining technique to estimate academic attrition. The frameworks use 2 different classification methods, linear regression and a SVM classifier, to develop a better insight of attrition throughout the first student enrolment and to evaluate the value of the evidence for the classification problem, which can be acknowledged as the forecasting of setback of academic qualification due to low educational outcomes. The models are designed to predict attrition throughout the first four semesters of a student's academic career. Evaluate any of these areas first, and then register at a certain time. The models were trained using past academic files and records from the admissions process, and they were validated using cross-validation and formerly unseen information from an entire academic term. The addition of academic data improves the prediction of educational status loss, according to the findings of the experiments.

21. BINARY IMAGE CLASSIFICATION USING LSTM AND LOGISTIC REGRESSION

Ramesh Gugulothu, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

For binary pictures with low contrast ratio and interference, this work provides an improved LSTM classifier. First, exceptional gradient is used to extract features, and then Long Short Term Memory is employed to create a base classifiers. Then, using the logistic regression chain classification framework, several LSTM models are built for target categorization. This study proposes a novel function for changing sample scores in order to increase the classifier's efficiency. In addition, new classifiers iteration approach described to minimize the recommended method's training process. The experimental findings on the binary dataset provided in this research for boosting generalization ability demonstrate that the proposed system's accuracy rate is about 90%, and its efficiency on other image datasets is similarly greater than general approaches.

22. SEGMENTATION OF SEVERAL CLASS DATA USING SUPPORT VECTOR MACHINE

Aseena Shaik Babu, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Balaji Guguloth, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

We offer techniques for multi - label categorization of high-dimensional data on line graphs using Support Vector Machines. The methods employ a heterogeneous surface model based on a logarithmic functional, which is linked to overall variation and line graph slices. Using the simplex technique, a multi - label extension is provided, with the functional's twofold potential changed to accommodate the multi - label scenario. The first approach employs a convex partition analytical model to minimize the functional. The next technique employs a line graph modification of the purely mathematical primal simplex scheme that alternates dissemination and quantization. On new dataset, picture labelling, and multiple reference data sets, we show the efficacy of both techniques empirically. Experiments show that the results are on par with, if not better than, the present state-of-the-art in multi - label graph-based categorization methods for high-dimensional data.

23. SEVERAL NETWORK PROTOCOLS INTERPLAYING WITH OPEN PLATFORM IN EDGE ENVIRONMENT

Nomula Madhavi, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Dr. Akella Satyanarayana, Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

Edge computing has benefited immensely from the emergence of intelligent applications. Data transmission methods have evolved in a variety of ways, producing issues with interoperability across terminal devices and stymieing the growth of edge computing. This study presents an interplaying solution for smart objects based on the file transfer protocol. There are three types of major functions: supervisor, converter, and gadget broker. The gadget broker proposes a conceptual conversion technique for FTP with some other protocols, which overcomes the problem of compatibility among FTP user devices and non-FTP host gadgets. Finally, the conceptual translation over the FTP protocol and the rest network protocols was performed, and the FTP multi-protocol interworking router was established.

24. RECURRENT NEURAL NETWORK FOR CONSTRUCTING THE RESOLUTION

Mamidi Ranjith Reddy, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Ballepu Naveen Kumar, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

The Recurrent Neural Network with a basic topological structure, neural networks are utilized to estimate complicated functions directly from input–output data. The wavelet basis function neural networks are developed in this letter. It's similar to wavelet neural networks and radial basis function neural networks. Approximating functions in neural network are based on both the scaling function and the wavelet function of a multi resolution approximation. Neural network have a sequential learning algorithm that is given and compared to recurrent neural network sequential learning method. Recurrent neural network the exhibit higher generalization properties and need less training time than standard neural network, according to experimental data.

25. ENSEMBLE METHODS FOR PLANT DISEASE CLASSIFICATION

Srinivas Gadari, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Deepika Appidi, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

In this work, we proposed Multi-model Ensemble Methods-based Pre-trained Convolutional Neural Networks as an ensemble majority voting classifier for the detection of plant diseases and pests. The proposed hybrid model is based on the combination of Ensemble deep learning network with pre-trained Ensemble models. Specifically, in transfer learning, we adopted deep feature extraction from various fully connected layers of these pre-trained deep models. AlexNet, GoogleNet and DenseNet201 models are used in this work for feature extraction. The extracted deep features are then fed into the Ensemble Methods in order to construct a robust hybrid model for apple disease and pest detection. Later, the output predictions of three Ensemble Methods determined the class labels of the input images by majority voting classifier. In addition, we use an automatic scheme for determining the best choice of the network parameters of the Ensemble Methods layer.

26. ANALYZING THE CLUSTERING APPROACH FOR MEASURING THE SQL PLATFORM

Dr. Pakala Madhusudan, Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Immadisetty Venkata Prakash, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

K-means, a common unsupervised learning approach, is widely used in data mining, machine learning, and pattern recognition. The technique entails arranging single and unique points in a group so that they are either similar to one another or different to points from other clusters. The current huge expansion of data has put traditional clustering approaches to the test. As a result, multiple research papers presented innovative clustering approaches that take use of WSN platforms like SQL, which is built for huge data processing in a distributed and rapid manner. Spark-based clustering research, on the other hand, is still in its infancy. In addition, we present a new taxonomy for clustering algorithms based on Spark. To the best of our knowledge, no survey on Spark-based WSN clustering has been done.

27. RESIDUAL NEURAL NETWORK FOR AGE ESTIMATE ACCURACY

Bandaru Rajani, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Shirisha Munasa D, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

In the fields of human-computer interaction and computer vision, age estimate from a single facial image has been a critical challenge with a wide variety of practical application values. Existing approaches for age estimate of face photos in the wild have a low accuracy because they only consider global aspects while ignoring the fine-grained features of age-sensitive regions. We offer a unique technique for fine-grained age estimation in the wild based on our attention CNN network, which is motivated by fine-grained categories and the visual attention mechanism. The proposed method extract local characteristics of age-sensitive areas, thus improving the age estimate accuracy. The fundamental model is chosen as a residual deep learning method is pre-trained on the Image dataset through kaggle source in online, which is then fine-tuned using hyper parameters. Then, using the target age datasets, we fine-tune the residual neural network to extract the global characteristics of face photos.

28. ANALYZING THE SIGNAL TRANSMISSION IN WSN USING TRADITIONAL CLUSTERING TECHNIQUES

Nomula Madhavi, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Vijayapuram Keerthi, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

It is vital to initially construct a signal processing infrastructure before acquiring relevant knowledge from cloud computing systems. Wireless sensor networks (WSNs) are a rich big data source among several possible data sources: diverse sensor nodes in large-scale networks create a great quantity of data. Due to the restricted capacities of the nodes, WSNs, unlike traditional wireless networks, have major flaws in terms of data dependability and communication. Furthermore, when a high number of sensor nodes are densely placed, a significant percentage of sensed data is of little relevance, useless, and redundant. We give a detailed assessment of the most recent research on incorporating WSN into big data systems. In line with the study topics and aims, potential applications and technical problems of networks and infrastructure are presented and discussed.

29. SERVER AND RECEIVER BASED CRYPTOSYSTEM

Pasham Mamatha, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

The production of public and secret keys is one of the primary issues in public key encryption, and server to receiver-based cryptosystems were created to solve this problem. An identifier, such as a user's user name, can be used by a trusted intruder to produce public and secret keys in a server to receiver-based cryptosystem. To distribute private keys to a user, the trusted third party employs a system-wide master secret. The concept of pairings may be used to build identity-based cryptosystems. The security ideas examined for the identity-based cryptosystem are also discussed in this paper. One-wayness, in distinguishability, semantic security, and non-malleability are among the security concepts explored. For the development of server to receiver-based cryptosystems, an architecture consisting of a public parameter server and a secret key generator is also presented.

30. OPTIMIZING THE TIME CONSUMPTION IN HOMOGENOUS CELLULAR NETWORK

Ramesh Gugulothu, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Balaji Guguloth, Assistant Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

In an underlay homogenous cellular network, where a micro base station and a number of small base stations transmit signals to a micro user and small users via their shared spectrum, this paper investigates the problem of time consumption (TC) for small cells that coexist with a micro cell. Under the restriction of a guaranteed quality-of-service need for the macro cell, we present a joint power and bandwidth allocation (JPBA) system for optimizing the Time consumption of small cells. In addition, a new two-tier iterative technique for obtaining the best solution of our EEM-JPBA scheme is described. The suggested two-tier iterative technique may fast converge to the best TM solution, according to simulation findings. Furthermore, it is demonstrated that the suggested TM-JPBA system surpasses the traditional power and bandwidth allocation approaches in terms of TM performance.

31. CLOUD SERVICE IN 5G BACKHAUL

Kothagattu Ramu, Associate Professor, Department of Computer Science and Engineering, Siddhartha Institute of Technology and Sciences, Narapally, Hyderabad, Telangana

Abstract

A good resource management plan can help you save money on network resources while also improving cloud service. A downstream resource management in 5G virtualized backhaul network is presented in this study to answer the problem of resource management challenges for many SPs sharing the same backhaul network and cloud service mismatch in homogeneous networks. To begin, the bandwidth assignment problem is modelled as a mathematical problem with the goal of reducing turning overhead and balancing load. The mathematics model is solved using the decision tree algorithm. Second, the proposed cloud service mapping technique maps 5G traffic to distinct priority queues in system. Finally, the proposed resource scheduling algorithm schedules downstream traffic. The suggested approach may maintain high resource utilization, decrease wavelength tuning overhead, and improve traffic latency, according to numerical findings.

32. EXCHANGING MESSAGE BY EVOLUTIONARY CLUSTER

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Abstract

We're frequently interested in grouping items that change over time and figuring out how to solve the clustering problem at each time step. The performance of evolutionary clustering is superior to that of separately clustering data acquired at different time intervals because it gives insight into cluster evolution and temporal changes in cluster memberships. The evolutionary affinity propagation (EAP) method, which groups data points by exchanging messages on a factor graph, is described in this article. By linking the nodes of the factor graph that are connected with neighboring data snapshots, EAP increases the temporal smoothness of the solution to clustering time-evolving data, and provides consensus nodes to enable cluster monitoring and detection of cluster births and deaths. EAP identifies the number of clusters and records them automatically, unlike other evolutionary clustering approaches that require extra processing to approximate the number of clusters or match them through time. The suggested EAP algorithm's efficacy is demonstrated by a comparison with existing approaches using simulated and experimental data.

33. INVESTIGATION OF POISON DISTRIBUTION FOR REMOTE SENSING

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Abstract

For Bayesian classification, Poisson distribution (PD) are a strong and intriguing theoretical framework. Despite their rise in popularity in recent years, they remain a methodology whose true capacity has yet to be realized. We propose in this research to investigate the PD strategy for categorizing multisource and hyper spectral remote sensing pictures in depth. To this purpose, we investigate two quantitative approximation methodologies for PD classification: the Laplace and expectation-propagation methods, which are implemented using two alternative correlation functions, namely the hyperbolic exponential and sensory correlation functions. We also look at how the computational surge works. We also look at how a quick sparse-approximation approach like the informative vector machine may drastically lower the computational cost of PD classifiers (PDCs) without incurring considerable severability. Experiments were designed to investigate PDCs' sensitivity to the quantity of training samples as well as the dimensionality curse. The PDC can obviously compete with the state-of-the-art machine learning model, according to the obtained prediction accuracy.

34. PROTECTION OF PERSONAL DATA FOR WIRELESS MEDICAL SENSOR

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Abstract

Wireless sensor have been more widespread in healthcare systems such as hospital and residential patient surveillance in recent years. Electronic surveillance, tampering, impersonator, and replaying cyber-attacks are more common in wireless medical sensor networks than in wired networks. There has been a lot of effort put towards protecting wireless medical sensor networks. Existing systems can secure patient sensitive data, but they can't prevent an inside intrusion in which the patient database's administrator leaks critical patient data. In this research, we offer a plausible solution to preventing an inside assault by storing patient data on numerous data servers. In this research, we offer a feasible solution to preventing an inside assault by storing patient data on numerous data servers. The fundamental contribution of this research is the safe distribution of patient data among various data servers and data analysis using the Paillier and Steganography cryptosystems to do data analysis on patient data without jeopardizing the protection of the patients.

35. MECHANISM FOR FCP VARIANT IN MOBILE AD HOC NETWORK

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Abstract

In mobile ad hoc networks, a sequence number verification approach is suggested to increase FCP connection speed. A routing protocol is responsible for validating the hop count between a source and destination pair when a FCP connection is being established. If the number of hops exceeds a certain threshold, the routing protocol chooses to utilize a proxy node. A proxy node's job is to ensure the validity of data packets and signal the source node of any missing signals by providing an affirmative to the provider node. As a result, the base station can retransmit any number of packets ahead of schedule, rather than waiting for an edge acceptance from the end. The suggested technique may enhance capacity by up to 55 percent in a dynamic infrastructure and reduce routing overhead by up to 95 percent in a mobile network, according to simulation data.

36. CLASSIFICATION OF INFORMATION USING ANN WITH REINFORCEMENT LEARNING

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Abstract

Information categorization algorithms have been widely used to evaluate user data. Traditional reinforcement learning systems need several components, which demand a thorough understanding of the subject. Because internet posts are frequently brief, there aren't many factors to consider when classifying them. In this study, the effects of reinforcement learning and Artificial Neural Networks on information classification in industry are examined. To commence, reinforcement learning algorithms are employed to convert document words into matrix. The word structure in phrases is then sent into an artificial neural network, which learns long contextual interdependencies among words. The length and quality of the training period have a big influence on effectiveness. To verify the effectiveness in various industrial document platforms, more study is required.

37. EXTRACT THE MALWARE INFORMATION FROM THE BROWSER USING RADIAL BASIS FUNCTION NETWORK

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Abstract

The browser framework is widely utilized in today's enterprise applications, enabling software vendors to effectively supply them as a service, alleviating some of the burdens associated with traditional release and update methods. Using explicit models that offer insight into how an application works can help with development, debugging, and management. Mining malware data models, on the other extreme, is tough since it requires determining if networks are functioning effectively without the presence of malware. Radial Basis Function Networks are a method for extracting malware patterns across several browsers. Proposed RBFNs gradually create a model by creating programs runs and monitoring software quality via a graphical interface. In our evaluation on multiple real-world browsers, the recommended models that clearly describe the established actions and can be used instantly for design evaluation.

38. MAXIMIZE THE LIFETIME OF FANET NETWORK USING RESTRICTED BOLTZMANN MACHINES

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Abstract

Without Unmanned Air Vehicles, a FANET is meaningless. However, in a FANET-based infrastructure, UAV power sources are restricted. A proposed strategy for assuring energy savings and increasing network lifespan involves designing vehicles to minimize the communication length between UAVs and base stations. In this paper, we propose using a Restricted Boltzmann machine to extend the lifespan of FANET-based operations. There are two portions to the intended RBM. A suitable number of UAVs is initially estimated for overlapping equitable clusters. Finally, by circulating the UAVH functionality amongst adjacent UAVs using a unique Cluster construction algorithm that includes a back-off time strategy for UAVH selection and a rotational mechanism for UAVH rotating, UAV heads are picked at optimum places. The proposed strategy, in particular, reduces and regulates UAV power dissipation by enhancing clustering structure, whereas RBM is best for long-lived networks. The RBM outperforms conventional methods, according to the findings of the experiments.

39. CNN WITH DIMENSIONALITY REDUCTION FRAMEWORK FOR EFFICIENT WEB MINING

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Abstract

Given the exponential growth of digital content in today's society, the continual collecting and dissemination of data in recent years has resulted it hard to extract relevant data from it, driving the development of web mining. Dimensionality reduction framework is part of the data mining approach. Dimensionality reduction is the process of identifying common patterns in a large amount of data and extracting strong relational ties between them. Individual's behavior, on the other hand, has a significant influence on mining. Several academics calculate these two figures using mean and weight, but the outcomes are still inadequate. This study proposed a new CNN-Dimensionality Reduction method, which is a clever algorithm that can explore the optimal solutions, which we use to select the best requirement, and then put forward that data parameter to monitor the effectiveness in Cnn model, and the enhanced method was tried applying to the social welfare event reliability test and the improve method was tried to apply to the social welfare event reliability test and the strengthen algorithm.

40. MEASURING THE CANCER PATIENT SURVIVAL RATE BY MODIFIED LSTM

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Abstract

On a global basis, cancer is the top factor of mortality and illness. In actual clinical data research, determining cancer patient survival is a challenging issue. Several studies have found that key qualities have a role in improving the efficacy of training sets. This study examines overall survival in a sample of people who were brought to the clinic. The objective is to find critical attributes and deep learning technologies that help enhance cancer patient lifetime prediction accuracy. Deep belief networks, multilayer perceptron, recurrent neural networks, and generative adversarial networks were used in this study to assess survival rates. The imbalance group issue is fixed via a selective oversampling strategy. The results are compared to those acquired using deep learning algorithms and a wide range of features. As per observed measurements, the proposed approach beats earlier models and achieves a better performance score with SOA in determining cancer survival.